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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,195	03/02/2000	Charles E. Young	30408-1001	4692

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EXAMINER
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REAGAN, JAMES A

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/517,195	YOUNG, CHARLES E.	
	Examiner	Art Unit	
	James A. Reagan	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-23 and 25-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23 and 25-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Status of Claims**

1. This action is in response to the amendment filed on 05 July 2005.
2. Claims 21 and 40 have been amended.
3. Claims 21-23 and 25-57 have been examined.

### **RESPONSE TO ARGUMENTS**

4. Applicant's arguments received on 05 July 2005 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims. Applicant's argument has been addressed in the rejections below.

### **Claim Rejections - 35 USC § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-23 and 25-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buxton et al. (US 6,118,427 A) in view of Bell (US 5,424,945 A), and further in view of Zawilinski (US 5,676,138 A).

**Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

**Claims 21 and 40:**

Buxton, as shown, discloses the following limitations:

- *displaying an undivided display object on a display screen for a predetermined time to at least one viewer for the purposes of collecting viewer reactions to the display object (see at least Figures 1, 2, and 13-16, and associated text);*
- *collecting cognitive viewer reactions to at least one element of the display object after the at least one viewer has viewed the undivided display object; (see at least Figure 4 and associated text);*

- *dividing the display object into a plurality of spatial regions after the step of displaying the display object to at least one viewer (see at least Figures 1, 2, and 13-16, and associated text);*
- *correlating the previously collected viewer reactions with the spatial regions of the display object; (see at least Table 1 and associated text);*
- *image processing, using a computer or other processor, the viewer reactions corresponding to each spatial region (see at least column 1, lines 15-20; column 2, line 41; column 7, line 48 to column 8, line 41).*
- *displaying to the decision maker, and not the at least one viewer, the display object with at least one characteristic based on the viewer reactions corresponding to each spatial region (see at least column 1, lines 15-20; column 2, line 41; column 7, line 48 to column 8, line 41).*

Buxton does not specifically disclose collecting cognitive viewer reactions. Bell, however, discloses a document (display object) is analyzed and given a visual aspect in view of certain criteria and a grid is electronically "placed" over the aspect (see at least column 7, lines 3-10), the grid is divided into a plurality of spatial regions being a matrix of cells as shown in at least Figure 3. Bell also discloses harmony of gradation can be evaluated using the grid system (see at least column 13, lines 26-57). In addition, Bell discloses when analyzing the document in terms of psychological effect the users desires, sometimes the users desires are different from the graphic designer. Bell discloses a "consensus" is reached between the users desires (collecting viewer reactions to an exposure of a document (display objects) and the parameters of the system (see at least column 18, lines 22-41). Bell further discloses the user is asked questions to determine the psychological effect of the document (see at least column 18, lines 42-65). The "consensus" reached between the data from the computerized interview and the parameters of the system meets the limitation on collecting viewer reactions to an exposure of a document (display object). Bell goes on to discuss the psychological tests in column 18, lines 66-68 and all of column 19. As previously disclosed, Bell discloses a consensus is reached between the system parameters and

the desires (viewer reactions) of the user based on questions in a test to determine the psychological effects. Bell discloses the in the electronic grid case, the selected region is simply one square in the grid, and the process of evaluating the image data associated with the area within the grid square is repeated for every grid square (column 14, lines 42-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the GUI-based user performance optimization system of Buxton with Bell's psychological analysis technique and system by applying the same techniques to a method that seeks to increase consumer awareness of a particular product by optimizing viewer reactions to matter such as advertisements, magazines and other printed publications, or electronic publications for the purpose of maximizing revenues, and measuring the response time or other similar cognitive viewer responses that would indicate increased viewer attention.

The combination of Buxton/Bell does not disclose that the image is originally displayed undivided. Zawilinski, however, in at least Figure 2 shows images without a divider grid superimposed thereon. In addition, since Zawilinski does not disclose the use of a grid system superimposed upon the graphic, the limitation of not showing the graphic to one or more viewers with a grid superimposed is inherently disclosed. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Buxton/Bell with Zawilinski because Bell discloses, "A system evaluates the psychological effect of an image embodied in image data. At least one subset of the image data is identified by a visually-perceptible characteristic thereof (abstract)." There is no discussion regarding a grid system until the evaluation system parses the graphic without allowing the viewer to see the grid.

**Claim 22:**

With regard to the limitation of *the viewer reactions comprise at least one cognitive response selected from the group consisting of memory of elements, likeability, appeal, purchase interest, relevance, and emotional response*, the Buxton/Bell use of psychological

evaluation as shown in the rejections above clearly envisage these viewer responses as claimed.

**Claims 23 and 53:**

With regard to the limitation of *the image processing step comprises correlating viewer responses with at least one characteristic selected from the group consisting of coloring, color saturation, transparency, superimposition, opacity and tingeing*, see at least Buxton column 1, lines 15-20; column 2, line 41; column 7, line 48 to column 8, line 41.

**Claim 24:**

With regard to the limitation of *the step of the displaying to the decision maker the display object comprises viewing at least one characteristic corresponding to each spatial region of the display object*, see the rejection of claims 21 and 40 above.

**Claim 25:**

With regard to the limitation of *the decision maker determining whether the display object elicited desired effects in the viewer, and strengths and weaknesses of each spatial region of the display object*, this a necessary segment of the collecting step conducted in claims 21 and 40 as shown above. It would have been obvious to one of ordinary skill in the art at the time of the invention to evaluate the data collected to determine the relative value of differing regions of a display because the resulting data would determine which regions have the greatest desired impact upon a viewer.

**Claims 26, 27, and 46-48:**

Buxton discloses the GUI-based user performance optimization system as shown above. Buxton does not specifically disclose:

- *displaying the object for a predetermined time of between approximately 1/4 second and 4 seconds.*
- *displaying the object to the viewer for a first short predetermined time;*
- *collecting first viewer reactions to the first short display;*
- *displaying the object to the viewer for a second longer predetermined time; and*
- *collecting second viewer reactions to the second longer display;*
- *said display for displaying an undivided display object displays said display object for at least one predetermined time exposure.*
- *said display for displaying an undivided display object displays said display object for a sequence of predetermined time exposures.*

However, Buxton does disclose "A total of 576 trials were run for each user; 14 users were tested. Trials were presented in random order at 5 second intervals (see at least column 9, lines 30-32)." It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Buxton's use of the five second interval by employing diverse interval values, depending on the system requirements and the data gathering metrics, as well as the intent of the system, because adjusting the temporal display period would allow a system evaluator to observe dissimilar information that may not be readily apparent if the time intervals were not varied.

With regard to the limitation of *displaying to the decision maker a plurality of images, wherein each image is derived from each of the collected viewer reactions*, see at least Buxton, column 1, lines 15-20; column 2, line 41; column 7, line 48 to column 8, line 41.

**Claims 28, 29, 56, and 57:**

With regard to the limitations of:

- *the displaying to the decision maker step comprises providing static images to the decision maker,*
- *the displaying to the decision maker step comprises playing a movie of the images to the decision maker.*



See at least Buxton column 4, line 11.

**Claims 30, 35, 36, 41, 42, and 43:**

With regard to the limitations of:

- *displaying the display object on a computer screen;*
- *displaying via a projector onto a surface;*
- *a visual stimulus represented or projected on a two-dimensional surface;*

The Examiner takes **Official Notice** that it would have been obvious to one of ordinary skill in the art at the time of the invention that utilizing computer screens and projection devices are old and well-known methods of displaying digital data because they are abundant and easily adapted to variety of displaying tasks.

**Claims 31 and 55:**

With regard to the limitation of *each spatial region comprises a cell of a matrix*, see at least Buxton Figures 1, 2, and 13-16, as well as the related text.

**Claims 32-34, 37, 51, and 54:**

Buxton/Bell disclose use of psychological evaluation as shown in the rejections above  
Buxton/Bell do not specifically disclose:

- *recording remembered elements;*
- *determining how long it takes the viewer to register the elements;*
- *recording the location on the screen where the viewer remembered seeing the elements;*
- *the at least one characteristic of a spatial region is determined by the percentage of viewers having reactions to one or more elements located in the spatial region.*

- *said processor determines a time length for viewers to register at least one element of the display object.*

However, the Examiner takes **Official Notice** that it would have been obvious to one of ordinary skill in the art at the time of the invention to record relevant viewer response information because the resulting data would determine which variables have the greatest desired impact upon future viewers.

**Claims 38, 39, 45, 49 and 50:**

With regard to the limitations of:

- *the display object comprises at least one object selected from the group consisting of a print advertisement, a page from a catalog, magazine, or other printed publication, an electronically published page, an Internet page, a CD-ROM page, a photograph, an artistic rendering, and a visual representation,*
- *the at least one element comprises an object selected from the group consisting of a headline, a character, a figure, a word, a package, a brand, and a logo.*

See the rejection of claims 21 and 40 above.

**Examiner's Note:** Is it the intention of the Applicant to have claim 49 depending from claim 40, or from claim 50 as is written?

**Claim 44:**

With regard to the limitation of *display of the display object comprises a visual stimulus designed to communicate a specific set of messages in order to elicit a response from viewers of the display object*, this step is intrinsically disclosed by the limitations of the preceding claims as being an obvious and necessary resultant component of gathering viewer responses.

**Claim 52:**

With regard to the limitation of *viewer responses comprise at least one response selected from the group consisting of memory of elements, length of time for the view to register an element, location on the display where the viewer remembered seeing an element, likeability, appeal, purchase interest, relevance, an emotional response, and a cognitive response*, see the rejections of claims 22, 33 and 34 as shown above.

**Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 3621

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **James A. Reagan** whose telephone number is **571.272.6710**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **James Trammell** can be reached at **571.272.6712**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks**

**Washington, D.C. 20231**

or faxed to:

**571-273-8300** [Official communications, After Final communications labeled "Box AF"]

**571-273-8300** [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window:**

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JAR

09 September 2005

*Chia-Li Tsai*  
**PRIMARY EXAMINER**